Mole Relationship in a Chemical Reaction Lab

Directions:

1. Clean an evaporating dish and rinse it with water from the sink. Dry it thoroughly with paper towels.
2. Obtain the mass of the evaporating dish and the watch glass to the nearest 0.01 grams.
3. With a scoopula, add about 3 grams of sodium bicarbonate (NaHCO3) to the evaporating dish and read the mass to the nearest 0.01 grams.
4. Obtain about 8 mL of 6M hydrochloric acid in a clean graduated cylinder. Record the exact measurement.
5. Slowly add the acid to the sodium bicarbonate from your graduated cylinder. Allow the drops to enter the lip of the evaporating dish so that they flow down the side gradually.
6. Continue adding all of the acid slowly. Make sure to keep the watch glass on.
7. Tilt the dish from side to side to make sure the liquid has reached the entire solid.
8. Heat the liquid in the evaporating dish over a Bunsen burner. Make sure to keep the watch glass on top of the evaporating dish. Be careful of splatter. You should be using a blue flame and waving it underneath the evaporating dish back and forth.
9. Make sure it appears to be excessively dry. Heating should take approximately 10 to 15 minutes.
10. Remove the heat from under the dish and let it cool.
11. Record the new mass to the nearest 0.01 grams.

Data:

Mass of empty evaporating dish + watch glass \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mass of dish + watch glass + NaHCO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mass of NaHCO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mass of dish + watch glass + NaCl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mass of NaCl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Volume of HCl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_